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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,018	03/30/2004	Von Friedrich C. Paterro		2793

7590
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02/13/2007

EXAMINER

HOLZEN, STEPHEN A

ART UNIT	PAPER NUMBER
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3644

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/812,018	PATERRO, VON FRIEDRICH C.	
	Examiner	Art Unit	
	Stephen A. Holzen	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-24 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-24, 26-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the rejection(s) of claim(s) have been fully considered and are persuasive.

a. The examiner withdraws the 35 USC 101 rejection in light of applicant's argument that the present invention has at least one utility (reducing aircraft drag).

b. The examiner withdraws the 35 USC 102 and 103 rejections in light of applicant's amendments.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6, 10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackburn et al (5,797,563) in view of Nosenchuck (5,964,4⁴³³~~53~~).

Blackburn et al disclose a flying craft (20), comprising: an exterior hull (30) defining an exterior craft surface of a predetermined surface area at least one propulsion source (112); and an electrical generator (14),

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wherein the hull includes a plurality of sectionalized electromagnetic plates (Figure 13, illustrates "plates" that contain coiled wires #96) that produce a magnetic field, see also Col. 16, lines 36-49),

the electromagnetic core operatively coupled to the electrical generator (via #95) to provide an electromagnetic force to each plate of a given magnitude and polarity (#14), the electromagnetic plates collectively forming a substantial portion of the exterior craft surface (see Figure 12) to provide a controllable electromagnetic field around at least portions of the hull to magnetically curve the space adjacent the hull (see Figures 2, 3, and 12). Figure 13 illustrates sectionalized electromagnetic plates on the upper and lower hulls while Figure 3 illustrates a saucer shape, as well as the collective polarity of the upper and lower surfaces are the same, wherein the craft is submersible water craft (see Col. 5, lines 51-54).

Blackburn does not disclose that the "plates" in figure 13 are each independently changeable North and South Polarity.

Nosenchuck teaches a staggered actuation of electromagnetically tiles for boundary layer control. Nosenchuck uses a plurality of two-dimensional array of control region tiles (405) formed by separately actuatable electrodes (407). Nosenchuck alters the polarity of the electromagnetic tiles to induce laminar boundary layer flows.

It would have been obvious to one having ordinary skill in the art to replace the large plates of Blackburn (as illustrated in Figure 13) with the individually actuated tiles (406, 407) of Nosenchuck for the purpose of increasing boundary layer controls.

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4. Claims 1, 2, 3, 5-7, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox (4,891,600) in view of Nosenchuck (5,964,⁴³³~~453~~).

Cox discloses a craft (see Figure 38), comprising: an exterior hull (see Figure 38) defining an exterior craft surface of a predetermined surface area' at least one propulsion source (914 is a generator that creates electro-dynamic behavior; it is a source of propulsion); and an electrical generator (912), wherein the hull includes a plurality of sectionalized electromagnetic plates (904, 906), each of the plurality of electromagnetic plates including an outer wall and an inner wall (Figure 38) fixedly provided on an electromagnetic core (910), the electromagnetic core including at least one turn of coil (see Figure 38, #910 and #912) operatively coupled to the electrical generator to provide an electromagnetic force to each plate of a given magnitude and polarity, the electromagnetic plates collectively forming a substantial portion of the exterior craft surface (see Figure 38) to provide a controllable electromagnetic field around at least portions of the hull to magnetically curve the space adjacent the hull, wherein the electromagnetic plates extend around the periphery of the hull of the craft (see Figure 38, #904 and 906), wherein the electromagnetic plates extend radially around the hull of the craft (see Figure 38, #904 and 906), wherein the craft is a flying craft (see Figure 38), wherein the flying craft has a saucer shape with an upper hull portion and a lower hull portion (see Figure 38), wherein the electrical generator includes at least one high frequency oscillator (860). Cox teaches plates (904) that are used to generate a polarization current body force acting vertically. The plates cover the full diameter of the vehicle and store electrical energy, which is cyclically converted into magnetic field energy of the coil (900).

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Cox does not disclose that the plates are each independently changeable ^{between} North and South Polarity.

Nosenchuck teaches a staggered actuation of electromagnetically tiles for boundary layer control. Nosenchuck uses a plurality of two-dimensional array of control region tiles (405) formed by separately actuatable electrodes (407). Nosenchuck alters the polarity of the electromagnetic tiles to induce laminar boundary layer flows.

It would have been obvious to one having ordinary skill in the art to replace the large plates of Cox (as illustrated in Figure 38) with the individually actuated tiles (406, 407) of Nosenchuck for the purpose of increasing boundary layer controls.

Re – Claim 5: Electromagnetic plates are inherently capable of being adjusted to the same polarity as the Earth's closest magnetic pole.

5. Claims 8, 9, 14, 16-19, 21, 22, 27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable of Cox as applied above in view of Paterro (6,367,739). Cox discloses every aspect of the present invention except where the aircraft has the propulsion system described in these claims. Paterro has disclosed that the claimed propulsion system is well known in the art. (Note: The applicant's own patent is being used against him. Patent '739 published more than 1 year prior to the filing the current application, and therefor is not disqualified under 103(c).) Paterro ('739) discloses every aspect of claims 8, 9, 14 and 31. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the propulsion system of Paterro in the aircraft of Cox for the purpose of providing a redundant propulsion system to prevent the aircraft from crash landing in the case where the electromagnetic system fails.

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Inherently the exhaust system is “compound” in that it consists of two or more substances, ingredients, elements, or parts

Re – Claim 17, 18, 19, and 22: Cox discloses every aspect of the electromagnetic propulsion system as claimed. Cox discloses every aspect of the present invention except where the aircraft has the propulsion system described in these claims. As discussed above: Nosenchuck teaches a staggered actuation of electromagnetically tiles for boundary layer control. Nosenchuck uses a plurality of two-dimensional array of control region tiles (405) formed by separately actuable electrodes (407). Nosenchuck alters the polarity of the electromagnetic tiles to induce laminar boundary layer flows.

Paterro has disclosed that the claimed propulsion system (including the quantum jets, the number of jets, their orientation, and location) is well known in the art. (Note: The applicant’s own patent is being used against him. Patent ‘739 published over 1 year prior to the filing the current application, and therefor is not disqualified under 103(c).) Paterro (‘739) discloses every aspect of claim 17 and it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the propulsion system of Paterro in the aircraft of Cox for the purpose of providing a redundant propulsion system to prevent the aircraft from crash landing in the case where the electromagnetic system fails.

Re – Claim 16: Cox’s electromagnetic plates are inherently capable of being adjusted to the same polarity as the Earth’s closest magnetic pole

Re – Claim 21: wherein a collective exterior surface area of the electromagnetic plates is about one half of the surface area of the hull (see Figure 13 to Cox, the bottom surface is not covered by plates),

Re – Claim 27 (which was to be dependant from claim 17): Paterro discloses that non-fissile fuel engines are well known in the art. (see Col. 3, lines 33-34).

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cox as applied to claim 19 above, and further in view of Walmsley (2003/0127559). Cox discloses that it is known to have electromagnetic plates on the upper hull portion extending from substantially the pinnacle of the hull to an outer periphery of the upper hull surface. Cox does not disclose a cockpit at the top of the hull. Walmsley discloses that it is known in the art to adapt a VTOL aircraft to have a flight deck centrally on the upper hull portion above a turbine (7). (see Figure 1). It would have been obvious to one having ordinary skill in the art to include the flight deck for the purpose of controlling the aircraft manually. Further it would have been obvious to locate the flight deck at the central top of the hull for the purpose of symmetry and balance.

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox in view of Paterro (as applied to claim 1) and further in view of ordinary skill in the art. Cox in view of Paterro do not disclose the location nor the shape of the high frequency oscillator. However it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the oscillator in the form of a ring or alternatively between adjacent electromagnetic plates since it has been held that merely rearranging of the working parts of a device involves only routine skill in the art. In re Einstein 8 USPQ 167.

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8. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox in view of Paterro and further in view of ordinary skill in the art. Cox in view of Paterro do not disclose the location nor the shape of the high frequency oscillator. However it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the oscillator in the form of a ring or alternatively between adjacent electromagnetic plates since it has been held that merely rearranging of the working parts of a device involves only routine skill in the art. In re Einstein 8 USPQ 167.

9. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cox in view of Nosenchuck in view of Paterro and further in view of Walmsley.

Cox discloses every aspect of the claimed electromagnetic system (as discussed above).

Nosenchuck teaches a staggered actuation of electromagnetically tiles for boundary layer control. Nosenchuck uses a plurality of two-dimensional array of control region tiles (405) formed by separately actuatable electrodes (407). Nosenchuck alters the polarity of the electromagnetic tiles to induce laminar boundary layer flows.

It would have been obvious to one having ordinary skill in the art to replace the large plates of Cox (as illustrated in Figure 38) with the individually actuated tiles (406, 407) of Nosenchuck for the purpose of increasing boundary layer controls.

Paterro discloses every aspect of the claimed fuselage shape and propulsion source in his own patent: US 6,367,739.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the propulsion system of Paterro in the aircraft of Cox for the purpose

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of providing a redundant propulsion system to prevent the aircraft from crash landing in the case where the electromagnetic system fails.

Cox further discloses that it is known to have electromagnetic plates on the upper hull portion extending from substantially the pinnacle of the hull to an outer periphery of the upper hull surface.

Cox does not disclose a cockpit at the top of the hull.

Walmsley discloses that it is known in the art to adapt a VTOL aircraft to have a flight deck centrally on the upper hull portion above a turbine (7). (see Figure 1). It would have been obvious to one having ordinary skill in the art to include the flight deck for the purpose of controlling the aircraft manually. Further it would have been obvious to locate the flight deck at the central top of the hull for the purpose of symmetry and balance.

Both Cox and Paterro disclose a frequency oscillator however do not disclose the location nor the shape of the high frequency oscillator. However it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the oscillator in the form of a ring or alternatively between adjacent electromagnetic plates since it has been held that merely rearranging of the working parts of a device involves only routine skill in the art. In re Einstein 8 USPQ 167.

10. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox in view of Paterro.

Cox discloses a craft (see Figure 38), comprising: an exterior hull (see Figure 38) defining an exterior craft surface of a predetermined surface area' at least one propulsion source

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(914 is a generator that creates electro-dynamic behavior; it is a source of propulsion); and an electrical generator (912), wherein the hull includes a plurality of sectionalized electromagnetic plates (904, 906), each of the plurality of electromagnetic plates including an outer wall and an inner wall (Figure 38) fixedly provided on an electromagnetic core (910), the electromagnetic core including at least one turn of coil (see Figure 38, #910 and #912) operatively coupled to the electrical generator to provide an electromagnetic force to each plate of a given magnitude and polarity, the electromagnetic plates collectively forming a substantial portion of the exterior craft surface (see Figure 38) to provide a controllable electromagnetic field around at least portions of the hull to magnetically curve the space adjacent the hull.

Cox does not disclose that the plates are each independently changeable North and South Polarity (i.e. does not disclose magnetically altering the flow of particles in the vicinity of the hull).

Nosenchuck teaches a staggered actuation of electromagnetically tiles for boundary layer control. Nosenchuck uses a plurality of two-dimensional array of control region tiles (405) formed by separately actuatable electrodes (407). Nosenchuck alters the polarity of the electromagnetic tiles to induce laminar boundary layer flows.

It would have been obvious to one having ordinary skill in the art to replace the large plates of Cox (as illustrated in Figure 38) with the individually actuated tiles (406, 407) of Nosenchuck for the purpose of increasing boundary layer controls.

Both Cox and Paterro disclose a frequency oscillator however do not disclose the location nor the shape of the high frequency oscillator. However it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the oscillator in the

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form of a ring or alternatively between adjacent electromagnetic plates since it has been held that merely rearranging of the working parts of a device involves only routine skill in the art. In re Einstein 8 USPQ 167.


Paterro further discloses a jet that is inherently a sealed quantum jet. The jet is inherently "sealed" in as much as it would not be energy efficient to have an unsealed jet engine.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 571-272-6903. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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